

## REMARKS

The Examiner is thanked for the indication that claims 3-9, 14, 16-23, and 27-31 are allowable if rewritten in independent form.

Claims 1, 3-5, 10-15, 17, 18, 22-27, and 29-41 are currently pending in the instant application. Claims 1, 10-13, 15, and 24-26 presently stand rejected. Claims 1, 3, 5, 13-15, 17, 18, 26, 27, and 29 are amended herein. Claims 32-41 are newly presented. Entry of this amendment and reconsideration of the pending claims are respectfully requested.

### *Drawings*

The Office Action mailed on November 19, 2003 did not indicate whether the drawings are acceptable or objectionable to the Examiner. Accordingly, Applicants respectfully request an indication from the Examiner whether the drawings are accepted.

### *Claim Rejections – 35 U.S.C. § 103*

Claims 1-2, 10-13, 15, and 24-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,453,095 B2 to Feng et al. (“Feng”).

Amended independent claim 1 now recites, in pertinent part, “the nonlinearly chirped Bragg grating including *regions of silicon and polysilicon* disposed in the semiconductor material along the optical path to provide a plurality of perturbations of a refractive index along the optical path.” **Claim 1 has been amended to incorporate subject matter from cancelled claim 2 and allowable claim 3.** The Examiner indicated that claim 3 would be allowable if rewritten in independent form. *Office Action* mailed November 19, 2003 page 3. Since independent claim 1 now includes subject matter of allowable claim 3, Applicants respectfully request that the instant rejection of claim 1 be withdrawn.

Amended independent claim 13 now recites, in pertinent part, “the Bragg condition adjusted by *adjusting a temperature of the nonlinearly chirped Bragg grating*.” **Claim 13 has been amended to incorporate subject matter of formerly allowable claim 16** (now cancelled claim 16). Since independent claim 13 now includes

subject matter of previously allowable claim 16, Applicants respectfully request that the instant rejection of claim 13 be withdrawn.

Amended independent claim 26 now recites, in pertinent part, “a nonlinearly chirped Bragg grating including *regions of silicon and polysilicon* disposed in the semiconductor material along the optical path....” **Claim 26 has been amended to incorporate subject matter of allowable claim 27.** Since independent claim 26 now includes subject matter of allowable claim 27, Applicants respectfully request that the instant rejection of claim 26 be withdrawn.

**Allowable claim 29 has been rewritten in independent form, as requested by the Examiner.** Accordingly, Applicants respectfully request that the instant objection to claim 29 be withdrawn.

Newly presented claim 32 recites, in pertinent part, “the nonlinearly chirped Bragg grating including a *plurality of charge-modulated regions* disposed in the semiconductor material along the optical path to provide a plurality of perturbations of a refractive index along the optical path.” **Claim 32 includes subject matter of formerly allowable claim 6 (now cancelled), rewritten in independent form as requested by the Examiner.** Accordingly, Applicants respectfully submit that new claim 32 is presently in condition for allowance.

Newly presented claim 37 recites, in pertinent part, “the Bragg condition adjusted by *adjusting a concentration of charge in each of a plurality of charge modulated regions* disposed in the semiconductor material along an optical path .” **Claim 37 includes subject matter of formerly allowable claim 19 (now cancelled), rewritten in independent form as requested by the Examiner.** Accordingly, Applicants respectfully submit that new claim 37 is presently in condition for allowance.

Dependent claims 3-5, 10-12, 14, 16-25, 27, 29-31, 33-36 are nonobvious over the prior art of record for at least the same reasons as discussed above in connection with their respective independent claims, in addition to adding further limitations of their own. Accordingly, Applicants respectfully request that the instant § 103 rejections for claims 3-5, 10-12, 14, 16-25, 27, and 29-31 be withdrawn.

## CONCLUSION

In view of the foregoing amendments and remarks, Applicants believe the applicable rejections have been overcome and all claims remaining in the application are presently in condition for allowance. Accordingly, favorable consideration and a Notice of Allowance are earnestly solicited. The Examiner is invited to telephone the undersigned representative if the Examiner believes that an interview might be useful for any reason.

## CHARGE DEPOSIT ACCOUNT

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a). Any fees required therefore are hereby authorized to be charged to Deposit Account No. 02-2666. Please credit any overpayment to the same deposit account.

Respectfully submitted,

BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP

Date: Jan. 28, 2004

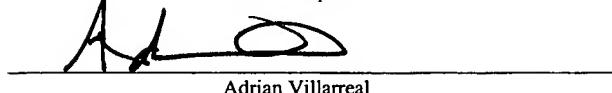


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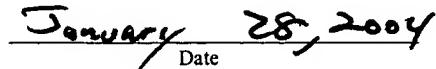
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

on January 28, 2004  
Date of Deposit



Adrian Villarreal



January 28, 2004

Date